

Christian Brothers University

SCHOOL OF ENGINEERING



Chemical



Civil



Electrical



Mechanical



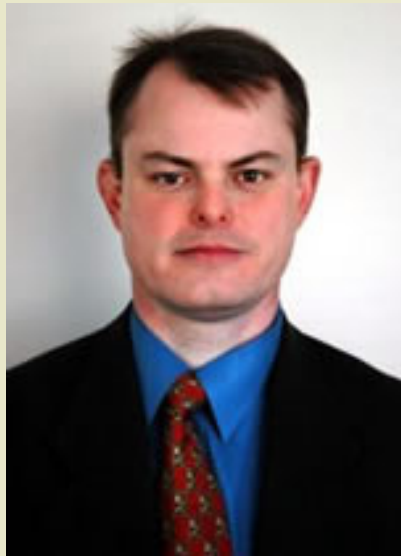
Graduate Engineering

Engineering Newsletters

January 2005

DR. WELCH NAMED NEXT DEAN OF ENGINEERING

CBU NEWS



Dr. Eric Welch, Chair of the Electrical & Computer Engineering Department, has been named the next engineering dean effective June 1, 2005. He succeeds Dr. Siripong Malasri who decided to return to the faculty full-time after serving as dean since 1999.

Dr. Welch, born in Stillwater, Oklahoma, and lived in Brazil for part of his childhood, received his B.S., M.S., and Ph.D. degrees in electrical engineering from Mississippi State University. He joined CBU as Assistant Professor in 1992, was promoted to Associate Professor in 1996, and was granted tenure in 1997. He has been ECE Department Chair since 2000. Besides his teaching and leadership roles in the ECE Department, he has also taught in the Engineering Management Graduate Program.

Dr. Welch has maintained an active consulting practice. Along with another engineer, Dr. Welch co-founded AVT Technical Investigations. Since 1994, AVT Technical Investigations has focused on providing technical investigation and evidence analysis for the legal profession.

Dr. Welch first became involved with electrical engineering topics as a teenager while earning his amateur radio operators license. In high school he began working at a local airport and at seventeen earned his pilots license. Later, during graduate school, he participated in one of the aviation research programs at the Raspet Flight Laboratory at Mississippi State University. Dr. Welch continues to fly and recently added a glider rating to his license.

In addition to engineering and aviation, Dr. Welch enjoys a wide variety of physical activities. He has been training in traditional martial arts for over twenty years. Currently, he holds a third-degree black belt in Judo, a second-degree black belt in Taekwondo, a first-degree black belt in Jujitsu, and a second-degree black belt in Hapkido. Dr. Welch has taught martial arts on a volunteer basis for many years and currently serves as a member of the United States Judo Association coach education program. Along with the martial arts, he also enjoys yoga, swimming and mountain biking.

NEW LAB EQUIPMENT HIGHLIGHTS

Carver hydraulic presses have been the standard for laboratories all around the world for more than 85 years. The one we acquired is an Auto"M"-D automatic hydraulic laboratory press with a 4080 ASTM Chase Frame Mold. It has a clamping force of 25 tons, a 1/4 HP hydraulic unit, two electrically heated platens with a digital temperature controller per platen. The digital control system consists of programmable set points for clamp pressure and cure time in three different units and 10 recipe-storage capability. This machine can be used for material research, testing of physical properties, making ASTM test molds for plastics, compression and composite molding and other specialized applications. It will be used for testing polymer/packaging materials both for teaching and research in the School of Engineering and as a part of services offered to local plastics and packaging companies. The University of Memphis and Rhodes College have expressed interest in the use of this machine for joint research projects.



Carver Hydraulic Press

GRADE SCHOOL OUTREACH ACTIVITIES

“Is Engineering in Your Future” Session for Girl/Boy Scouts

On Sunday January 23rd, the School of Engineering hosted a group of fifth grade girl and cub scouts from St. Louis Catholic Church. The “Is Engineering in Your Future?” session was conducted by **Dr. Randel Price** (ChE) and **Mr. Gene McGinnis** (CEE Chair). The scouts learned about many aspects of the engineering profession and completed a bridge design using the West Point Bridge Design Software. They also participated in demonstrations and experiments involving electronic surveying equipment, the CNC machine, open channel flow apparatus, wind tunnel, structural stress analyzer and process controls. Mr. McGinnis is the den leader for the fifth grade cub scouts at St. Louis.



Mr. Gene McGinnis with a group of boy/girl scouts

Packaging Summer Program for High School Students

The 2nd packaging summer program, funded by International Paper Foundation, will be held at CBU from June 6th-10th, 2005. Information and application forms will be posted very soon at the School of Engineering web site at: <http://www.cbu.edu/engineering>. If you are currently a high school student and did not attend the Packaging Summer Program in 2004, you are eligible to apply.

The Third Annual High School Competition

The 3rd Annual High School Competition has been scheduled for Thursday, April 7th, 2005. There will be four different competitions, namely Egg Drop, Balsa Bridge, CO2 Car, and Electric Air Vehicle. Rules will be posted soon at: http://www.cbu.edu/engineering/hs_comp_2005.html. Thanks to the following organizations and individuals for sponsoring the event:

- Barnhart Crane & Rigging Co.
- Ellers, Oakley, Chester, & Rike, Inc.
- EnSafe, Inc.
- Medtronic Foundation
- Brother Louis Althaus
- Mr. and Mrs. John Ventura

- CBU School of Engineering

If you have any questions about the competition or if teachers/groups would like a professor to visit and discuss the competition, please email questions/requests to HSCompetition@cbu.edu.

FE REVIEW



The School of Engineering will offer the FE Review on Mondays and Wednesdays from February 21 - April 11. The cost will be \$75/student for CBU students (\$250/person for others) for the review. You must buy your own review book. You may use the older edition of the book, if you can get a copy of it. A tentative schedule of the review can be found at: http://www.cbu.edu/engineering/fe_review.html. You also can get a copy of the review book at a discount through this web site. If you plan to attend the FE Review, please sign up with Ms. Leslie Dunn <ldunn@cbu.edu> with a check payable to CBU by February 7th.

Mark your calendar! The FE exam this spring will be on Saturday, April 16, 2005.

MAESC 2005 CALL FOR PARTICIPATION



The theme of the MAESC 2005 Conference is "Engineering Management: Leadership in Engineering Practice & Education." As with previous conferences, it will include papers and presentations on many diverse technical fields. If enough abstracts are received on a topic to fill an entire session, a session will be formed. MAESC 2005 will also have a poster session for those papers that cannot be placed into existing sessions. At least a full track will be devoted to engineering management, the theme of the conference.

All abstracts are to be submitted via email to abstract@cbu.edu by February 28, 2005.

Other important deadlines/dates:

- Author Registration: April 15, 2005
- Early Registration: April 27, 2005
- Regular Registration: May 4, 2005
- Conference Day: May 11, 2005
- Post-Conference Proceedings Materials Submission: May 31, 2005

For more information, check the conference web site at: <http://www.cbu.edu/engineering/maesc>.

2005 ENGINEERS WEEK CELEBRATION

Saturday, February 5, 2005 – Mathcounts

Time: 7:00 AM - Noon

Location: Christian Brothers University

Sponsoring Organization: Tennessee Society of Professional Engineers Memphis Chapter

Contact: Russ Walker 901-685-7428, email

rwalker@walkermckenzie.com

More information: www.tnspe.org

Notes:

- Mathcounts is the nationwide math coaching and competition program for 7th and 8th grade students. It promotes student interest in math by making math achievement as challenging, exciting, and prestigious as a school sport. Students competed individually and as teams in written and fast-paced oral competitions.
- TSPE is looking for practicing engineers and engineering professors to proctor the competition. Please contact Russ Walker at the contact info listed above.
- Also, CBU Admissions will offer a parents session on college admission from 9 a.m. – 10 a.m. in Spain Auditorium. All are welcome!

Saturday, February 19, 2005 – Engineers Week Student Contest

Time: 9:00 AM - Noon

Location: Southwest Tennessee Community College, Macon Cove Campus

Sponsoring Organization: Memphis-Area Joint Engineers Council

Contact: Jeff Gatlin 901-452-2500, email

jeff@thompsonengineers.com

Notes:

- The Engineers Week Student Contest is an opportunity for middle and high school students to express their creativity and demonstrate their ingenuity by working on concept projects designed to improve our quality of life. Judging criteria include: benefit to society, creativity, feasibility, and presentation. Monetary awards are given to the winning schools.

- MJEC is looking for practicing engineers and engineering professors to judge the contest. Please contact Jeff Gatlin at the contact info listed above.

Monday, February 21, 2005 – Engineers Week Kickoff Luncheon

Time: Noon

Location: Airport Radisson

Sponsoring Organization: Engineer's Club of Memphis

Speaker: To be announced

Cost: \$20 per person or \$180 for a table of 10

Contact: Loyal Murphy 901-683-0497, email

lwmurphy3@bellsouth.net

Note: The Kickoff Luncheon is the official start of Engineers Week. Featured Engineers from 20 local engineering organizations will be recognized and the Memphis-Area Joint Engineers Council Award of Excellence will be presented.

Wednesday, February 23, 2005 – Order of the Engineer Ceremony

Time: 11:30 AM - 1:00 PM

Location: Holiday Inn at the University of Memphis, 3700 Central

Sponsoring Organization: American Society of Civil Engineers

West TN Branch

More information: www.ascewtn.com

Contact: Chris Triplett 901-372-7962, email ctringlett@ensafe.com

Note: The Order of the Engineer is the roster of engineers in the United States who have participated in an Engineer's Ring Ceremony and who have publicly accepted the "Obligation of an Engineer," which states an engineer's responsibilities to the public and to the profession.



Thursday, February 24, 2005 – Engineers Week Banquet

Time: 5:30 PM Social, Live Music, and Silent Auction; 7:00 PM Dinner

Location: Germantown Country Club

Sponsoring Organization: Tennessee Society of Professional Engineers Memphis Chapter

Speaker: To be announced

Cost: Tickets are \$30 each and must be purchased in advance.

Contact: John Modzelewski 901-757-7281, email

jmodzelewski@ci.germantown.tn.us

Note: The Banquet is the closing ceremony for Engineers Week. Winners from Mathcounts and the Student Contest will be recognized, along with Featured Engineering Students from Christian Brothers University, Southwest Tennessee Community College, and The University of Memphis. The Memphis Chapter of the Tennessee Society of Professional Engineers will also make its award presentations.